

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

5. (once amended) An information data recording apparatus for recording information data on a recording medium having a recording track on which the information data is to be recorded and prerecorded data which are preformed on a portion different from the information recording track at first periodic interval, said apparatus comprising:

a memory which temporarily stores the information data to be recorded on the recording medium and supplies the information data in synchronism with a clock signal;

a prerecorded data signal reproducing circuit which detects the prerecorded data from the recording medium and generates a prerecorded data signal;

a clock signal generating circuit which generates the clock signal based on the prerecorded data signal;

a recording device which records the information data supplied from the memory on the recording track of the recording medium; and

a phase comparator which generates a phase difference signal relative to the prerecorded data signal by a phase comparison with a reference signal that has an interval shorter than an interval of a synchronization signal included in the prerecorded data signal.

6. (once amended) The information data recording apparatus as claimed in claim 5, further comprising a reference signal generator which generates the reference signal, wherein the memory stores the information data in synchronism with the reference signal.

10. (once amended) The information data recording apparatus as claimed in claim 9, wherein the feed-forward circuit comprises:

a voltage controlled oscillator which generates a second clock signal in accordance with a phase comparison output signal of said phase comparator, and

a second memory for storing said information data supplied from said memory in accordance with said clock signal and supplying said information data to said recording device in accordance with said second clock signal.

15. (once amended) An information data recording apparatus for recording information data on a recording medium having a recording track on which the information data is to be recorded and prerecorded data which are preformed on a portion different from the information recording track, the prerecorded data including first prerecorded data preformed at a first periodic interval which corresponds to m , m being an integer, times of a unit period that is specified by a recording format used for recording the information data, and second prerecorded data preformed at a second interval which corresponds to k , k being an integer smaller than m , times of the unit period, said apparatus comprising:

a memory which temporarily stores the information data to be recorded on the recording medium and supplies the information data in synchronism with a clock signal;

a prerecorded data signal reproducing circuit which detects the prerecorded data from the recording medium and generates a prerecorded data signal;

a clock signal generating circuit which generates the clock signal based on the prerecorded data signal;

a recording device which records the information data supplied from the memory on the recording track of the recording medium; and

a phase comparator which generates a phase difference signal relative to the prerecorded data signal by a phase comparison with a reference signal that has an interval shorter than an interval of a synchronization signal included in the prerecorded data signal.

16. (once amended) The information data recording apparatus as claimed in claim 15, further comprising a reference signal generator which generates the reference signal, wherein the memory stores the information data in synchronism with the reference signal.

20. (once amended) The information data recording apparatus as claimed in claim 19, wherein the feed-forward circuit comprises:

a voltage controlled oscillator which generates a second clock signal in accordance with a phase comparison output signal of said phase comparator, and

a second memory for storing said information data supplied from said memory in accordance with said clock signal and supplying said information data to said recording device in accordance with said second clock signal.

23. (once amended) A method for recording information data on a recording medium having a recording track on which the information data is to be recorded and prerecorded data which are preformed on a portion different from the information recording track at first periodic interval, said method comprising the steps of:

temporarily storing the information data to be recorded on the recording medium and supplying the information data in synchronism with a clock signal;

detecting the prerecorded data from the recording medium and generating a prerecorded data signal;

generating the clock signal based on the prerecorded data signal;

recording the information data on the recording track of the recording medium;

and

generating a phase difference signal relative to the prerecorded data signal by a phase comparison with a reference signal that has an interval shorter than an interval of a synchronization signal included in the prerecorded data signal.

24. (once amended) The method as claimed in claim 23, further comprising a step of generating the reference signal,

wherein at the storing step the information data is stored in synchronism with the reference signal.

33. (once amended) A method for recording information data on a recording medium having a recording track on which the information data is to be recorded and prerecorded data which are preformed on a portion different from the information recording track, the prerecorded data including first prerecorded data preformed at a first periodic interval which corresponds to m, m being an integer, times of a unit period that is specified by a recording format used for recording the information data, and second prerecorded data preformed at a second interval which corresponds to k, k being an integer smaller than m, times of the unit period, said method comprising the steps of:

temporarily storing the information data to be recorded on the recording medium and supplying the information data in synchronism with a clock signal;

detecting the prerecorded data from the recording medium and generating a prerecorded data signal;

generating the clock signal based on the prerecorded data signal;

recording the information data supplied from the memory on the recording track of the recording medium; and

generating a phase difference signal relative to the prerecorded data signal by a phase comparison with a reference signal that has an interval shorter than an interval of a synchronization signal included in the prerecorded data signal.

34. (once amended) The method as claimed in claim 33, further comprising a step of generating the reference signal,

wherein at the storing step the information data is stored in synchronism with the reference signal.

38. (once amended) The method as claimed in claim 37, wherein the eliminating step comprises:

generating a second clock signal in accordance with a phase comparison output signal, and

secondly storing said information data in accordance with said clock signal and supplying said information data in accordance with said second clock signal.